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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/608,090 | 06/30/2003 | Jean-Marie Bernard | 004900-195 | 8126 |

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| EXAMINER |
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SERGEANT, RABON A

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| ART UNIT | PAPER NUMBER |
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1711

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/608,090

Applicant(s)

BERNARD, JEAN-MARIE

Examiner

Rabon Sergeant

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-35 and 37-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-35 and 37-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 23-35 and 37-59 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Firstly, adequate support has not been found for the amendment to claim 23, specifying that Iso is a polyisocyanate residue containing at least two isocyanate functions after conversion of at least one isocyanate function. Applicant has stated that support exists at page 8 and the examples (specifically example 7); however, the disclosure at page 8 merely specifies that the starting isocyanate may be a polyisocyanate, it does not specify that at least two isocyanate functions remain after conversion, and example 7 merely allows for compounds that contain two isocyanate functions (as opposed to at least two) in addition to the converted one. Applicant must clearly show where support exists for this amendment.

Secondly, support has not been provided for the amendment to claim 34, in that neither support nor adequate definition has been provided for the term, "vicinal hydroxyl compound". It is by no means clear that the term corresponds to the term, vicinal diol.

2. Claims 48 and 49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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Within claims 48 and 49, adequate support has not been found for the embodiments where non-isocyanate functional compounds are reacted with the compound of formula (II). As claimed, there is no requirement that the compounds that react with the compound of formula (II) be isocyanate functional; however, the examiner has not found adequate support for these embodiments. Applicant's response is insufficient to remove the rejection, because it is clear that the argued compounds within the specification and examples contain isocyanate groups; however, the compounds of the claims are not so limited.

3. Claims 48 and 49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

With respect to claims 48 and 49, applicants have failed to provide adequate enablement for the claimed embodiments where non-isocyanate functional compounds are reacted with the compound of formula (II). As claimed, there is no requirement that the compounds that react with the compound of formula (II) be isocyanate functional; however, applicants have failed to teach how such reactions may proceed. Applicant's response is insufficient to remove the rejection, because the compounds of the argued examples are clearly disclosed as containing isocyanate functionality; however, the compounds of the claims are not so limited.

4. Claims 23-35 and 37-59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Firstly, with respect to claim 23, it is unclear how to interpret the language, “isocyanate functions”, in that it is unclear if the language provides only for free isocyanate groups or also for masked isocyanate groups. The meaning must be clear, since applicant has dependent claims wherein masked isocyanate groups are present. Currently, it is unclear if such masked groups are encompassed by the “isocyanate functions” language.

Secondly, the language, “hydrocarbonbased” (claim 24), renders the claim indefinite, because it is unclear to what extent the compounds or compositions are “based” on or derived from the recited compounds or components. Despite applicant’s response, the term, “hydrocarbonbased group”, has not been clearly defined.

Thirdly, with respect to claim 43, it is unclear what polyisocyanates are being referred to by the amended “polyisocyanate” language. Is applicant referring to the initial polyisocyanate or the modified polyisocyanate?

Fourthly, with respect to claim 44, the reference to “diisocyanate” renders the claim indefinite, because, by applicant’s argument, the modified isocyanates are derived from at least trifunctional isocyanates.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 23-28, 30, 31, 33-35, 37, 42-46, 48, and 50-59 are rejected under 35 U.S.C. 102(a) as being anticipated by WO 00/55263.

The reference discloses the reaction product of polyisocyanate, including biuret or isocyanurate derivatives, with a hydroxyl functional cyclic carbonate, such as glyceryl carbonate. See page 7, lines 13+ and page 8, lines 19+. The reference further discloses that these reaction products are combined with additional polyisocyanates, including masked polyisocyanates, and melamine to yield a coating. See abstract; page 4, lines 18+; and pages 5-8.

7. Claims 39, 47, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/55263.

As aforementioned, the reference discloses the reaction product of polyisocyanate, including biuret or isocyanurate derivatives, with a hydroxyl functional cyclic carbonate, such as glyceryl carbonate, and coatings comprising these reaction products, additional polyisocyanates, including masked polyisocyanates, and melamine. Though the reference is silent regarding the

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use of mixtures of blocking agents, the reference discloses multiple species of blocking agents; therefore, the use of a plurality of blocking agents would have been obvious to the skilled artisan. With respect to the subject matter of claims 47 and 49, the position is taken that it would have been obvious to combine and react the disclosed blocking agents, polyisocyanates, and hydroxyl functional cyclic carbonates, so as to arrive at applicants' process and the claimed polyisocyanate composition. This position is logical in view of the fact that the reference teaches that both blocking agents and the carbonates are reactants for the polyisocyanates.

8. Applicant has argued that the International Application provides full support for the rejected claims; therefore, the instant application has an effective filing date prior to the publication date of WO 00/55263. The examiner has considered this argument; however, since the International Application is not in English and since applicant has not furnished an English translation of the International Application, the examiner cannot verify that the International Application provides support for the instant claims and, therefore, cannot verify that the instant application is entitled to the date of the International Application.

9. Claims 23-27, 30, 31, 33-35, 42, 45, 47, 48, 50, 55, 56, and 59 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 419114.

The reference discloses the reaction of polyisocyanates with cyclic carbonates having an isocyanate reactive substituent attached to the ring, and the use of the resulting product within polymers. See abstract and page 3, lines 1-8. Applicant's argument that the reaction product of the polyisocyanates and cyclic carbonates of the reference fails to correspond to the instant compounds has not been substantiated. Given that the reference discloses the reaction of polyisocyanates and cyclic carbonates that correspond to those of applicant, applicant must

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provide evidence or a compelling argument that the respective products are different.

Applicant's response fails to satisfy this requirement. Furthermore, the reference discloses that a preferred reactant is a derivative of MDI; these derivatives, such as isocyanurate containing derivatives or polymeric MDI are recognized within the art as having functionalities greater than two.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.


RABON SERGENT
PRIMARY EXAMINER

R. Sergent
October 29, 2005